

TRI Total Releases, Manufacturing Industries (Original) (1988, 1995, and 1998-99)

	1988	1995	1998	1999	Change 1988-1999	
	Number	Number	Number	Number	Number	Percent
Total Forms	60,312	60,921	58,521	57,001	-3,311	-5.5
Form Rs	60,312	55,913	50,308	48,913	--	--
Form As	--	5,008	8,213	8,088	--	--
	Pounds	Pounds	Pounds	Pounds	Pounds	Percent
On-site Releases						
Total Air Emissions	2,180,639,873	1,204,241,021	926,738,884	858,480,472	-1,322,159,401	-60.6
Fugitive Air Emissions	680,462,991	307,062,214	217,594,652	200,342,670	-480,120,321	-70.6
Point Source Air Emissions	1,500,176,882	897,178,807	709,144,232	658,137,802	-842,039,080	-56.1
Surface Water Discharges	41,919,468	16,976,022	17,328,531	14,260,544	-27,658,924	-66.0
Underground Injection	161,915,411	154,739,353	114,704,830	109,315,219	-52,600,192	-32.5
On-site Land Releases	405,909,382	268,346,160	332,307,146	311,947,947	-93,961,435	-23.1
Total On-site Releases	2,790,384,134	1,644,302,556	1,391,079,391	1,294,004,182	-1,496,379,952	-53.6
Off-site Releases						
Storage Only ^a	13,830,674	2,233,190	5,504,460	5,934,163	-7,896,511	-57.1
Solidification/Stabilization - ^b	29,543,178	26,801,593	135,956,958	139,525,845	109,982,667	372.3
Metals and Metal Compounds Only						
Wastewater Treatment (excluding POTWs) - ^c	4,647,706	3,881,107	3,826,735	6,592,982	1,945,276	41.9
Metals and Metal Compounds Only						
Transfers to POTWs - ^d	9,588,447	2,552,146	3,009,214	3,345,324	-6,243,123	-65.1
Metals and Metal Compounds Only						
Underground injection	8,735,126	12,081,030	9,761,234	19,876,281	11,141,155	127.5
Landfills/Surface Impoundments	265,674,001	215,062,835	225,369,272	220,191,647	-45,482,354	-17.1
Land Treatment	2,704,070	889,966	539,102	2,852,222	148,152	5.5
Other Land Disposal	9,350,408	10,549,826	13,313,524	12,112,847	2,762,439	29.5
Other Off-site Management	37,593,064	13,513,937	9,053,431	14,724,123	-22,868,941	-60.8
Transfers to Waste Broker for Disposal	29,776,880	4,121,369	12,414,747	10,220,169	-19,556,711	-65.7
Unknown ^e	11,270,380	1,646,924	3,370,897	3,143,438	-8,126,942	-72.1
Total Off-site Releases	422,713,934	293,333,923	422,119,574	438,519,041	15,805,107	3.7
(Transfers Off-site to Disposal)						
Total On-site and Off-site Releases	3,213,098,068	1,937,636,479	1,813,198,965	1,732,523,223	-1,480,574,845	-46.1

Note: On-site Releases are from Section 5 of Form R. **Off-site Releases** are from Section 6 (transfers off-site to disposal) of Form R. **Off-site Releases**

include metals and metal compounds transferred off-site for solidification/stabilization and for wastewater treatment, including to POTWs. Breakdown of Underground Injection and On-site Land Releases (for RCRA Subtitle C landfills) began in 1996 reporting year.

Due to an EPA data entry error, one chemical reporting revision for 1999 by a facility, the US Army Letterkenny Depot in Chambersburg, PA, was not included in this table. At the time of publication, the facility had notified EPA that it anticipated revising off-site transfers to disposal (other off-site management) for manganese compounds from 5,584,900 pounds to below 500 pounds. Revisions by this facility of two other compounds are included in this table, but not included in the tables in the 1999 TRI Public Data Release report.

^a Storage only (disposal code M10) indicates that the toxic chemical is sent off-site for storage because there is no known disposal method. Amounts reported as transferred to storage only are included as a form of disposal (off-site release). See Box 1-5.

^b Beginning in reporting year 1997, transfers to solidification/stabilization of metals and metal compounds (waste treatment code M41) are reported separately from transfers to solidification/stabilization of non-metal TRI chemicals (waste treatment code M40). Because this treatment method prepares a metal for disposal, but does not destroy it such transfers are included as a form of disposal (off-site release). See Box 1-6. Reports under code M40 of metals and metal compounds have been included in solidification/stabilization of metals and metal compounds in this report.

^c Beginning in reporting year 1997, transfers to wastewater treatment (excluding POTWs) of metals and metal compounds (waste treatment code M61) are reported separately from transfers to wastewater treatment of non-metal TRI chemicals (waste treatment code M60). Because wastewater treatment does not destroy metals, such transfers are included as a form of disposal (off-site release). See Box 1-6. Transfers of metals and metal compounds reported under code M60 have been included in transfers of metals and metal compounds to wastewater treatment.

^d Reported as discharges to POTWs in Section 6.1 of Form R. EPA considers transfers of metals and metal compounds to POTWs an off-site release because sewage treatment does not destroy the metal content of the waste material.

^e Unknown (disposal code M99) indicates that a facility is not aware of the type of waste management used for the toxic chemical that is sent off-site. Amounts reported as unknown transfers are treated as a form of disposal (off-site release).

* "Original" industries include manufacturing industries in SIC codes 20-39 and federal facilities.